

**AMENDMENT TO THE CLAIMS**

**Please amend the claims as follows:**

1. (Original) A hologram system having a supporting part for loadably supporting a recording medium made of a photosensitive material, a signal generating part for allowing a coherent beam modulated in response to predetermined data to enter said recording medium and providing a three-dimensional light interference pattern there within to produce a diffraction grating, and a data processing part for detecting reproduced data by diffracted light from said diffraction grating and demodulating the data to the predetermined data, the hologram system is characterized in that

said recording medium has a reference data area in which a reference diffraction grating corresponding to a three-dimensional light interference pattern of a coherent light beam modulated in response to reference data has been stored in advance, a sector data area in which sector data is recorded, and a user data area in which user data is recorded, and

said reproduced data is corrected in response to said reference data reproduced from said reference diffraction grating stored in said reference data area, said sector data reproduced from said sector area, and reference data provided within a reference memory of said data processing part, and demodulated to the predetermined data.

2. (Original) A hologram system according to claim 1, wherein said signal light generating part includes a reference light generating part for allowing a coherent reference light beam of a first wavelength as said coherent light beam to enter said recording medium,

modulates a coherent signal light beam of the first wavelength as said coherent light beam in response to said data, allows the beam to enter said recording medium and intersect with said coherent reference light beam there within to produce a three-dimensional light interference pattern with said reference light.

3. (Currently Amended) A hologram system according to claim 1 ~~or 2~~, wherein said reference data within said reference memory of said data processing part includes various kinds of recording format data according to various recording media.

4. (Currently Amended) A hologram system according to ~~any one of claims 1 to 3~~ claim 1, wherein reference data that said reference diffraction grating stored in said reference data area of said recording medium has includes recording format data of said recording medium.

5. (Currently Amended) A hologram system according to ~~any one of claims 1 to 4~~ claim 1, wherein sector data recorded in said sector data area of said recording medium includes at least recording format data of said recording medium.

6. (New) A hologram system according to claim 2, wherein said reference data within said reference memory of said data processing part includes various kinds of recording format data according to various recording media.

7 (New) A hologram system according to claim 2, wherein reference data that said

reference diffraction grating stored in said reference data area of said recording medium has includes recording format data of said recording medium.

8. (New) A hologram system according to claim 3, wherein reference data that said reference diffraction grating stored in said reference data area of said recording medium has includes recording format data of said recording medium.

9. (New) A hologram system according to claim 2, wherein sector data recorded in said sector data area of said recording medium includes at least recording format data of said recording medium.

10. (New) A hologram system according to claim 3, wherein sector data recorded in said sector data area of said recording medium includes at least recording format data of said recording medium.

11. (New) A hologram system according to claim 4, wherein sector data recorded in said sector data area of said recording medium includes at least recording format data of said recording medium.